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FUNGI NOVI MISSOURIENSES.

AUCTORE DR. G. WINTER.

Fungi omnes hic descripti a Rev. C. H. Demetrio, amico meo æstimatissimo, circa Perryville, Perry Co., Mo., lecti sunt.

SPHÆRELLA DESMODII Winter nova species.—Perithecia epiphylla, in maculis magnis, valde irregularibus, arescendo-griseis fuscidulisve, margine obscuriori, determinato, varie flexuoso et sinuato circumdatis gregaria, minuta, hemispherica, poro simplici pertusa, atra, 70—90 μ diam. Asci oblongo-cylindracei, sursum parum attenuati, vertice rotundati, sessiles, 8-spori, 35—40 μ longi, 6—7 μ crassi. Sporae distichae, cymbiformes s. fusoidae, saepe plus minusve curvatæ, medio uniseptatae, sed non constrictae, hyalinæ, 10.2—12 μ longae, 2.5—3.5 μ crassae.

Ad *Desmodii canescentis*, D. C. folia viva, Aug. 1883.

DIDYMOSPHÆRIA PHYLLOGENA Winter nova species.—Perithecia in macula rotundato-angulata vel irregulari, fusca, linea atra cincta, determinata, usque 8 millim. diam., hypophylla, immersa, epidermidem perforantia, punctiformia, tenuissime membranecea, ca. 100 μ diam. Asci clavati, brevissime pedicellati, 8-spori, 50—70 μ longi, 9—11 μ crassi. Sporae distichae (rarius submonostichae), oblongae, inæquilaterales, utrinque alternatae, bicellulares, ad septum constrictae, fuscidulae, 14—16 μ longae, 5 μ crassae. Paraphyses crassae, cylindraceae, septatae.

Ad folia delapsa *Liriodendri tulipiferae* L. October, 1883.

DIATRYPE ROSEOLA Winter nova species.—Stromata sparsa v. subgregaria, disciformia, orbicularia v. parum irregularia, non raro confluentia, plana vel parum convexa, erumpentia, lateribus ab peridermii fissi laciniis erectis cincta, 1.5—2.5 millim. lata superne sordide pallidissimaque rosea, demum nigricantia, rimulosa, intus albida. Perithecia in singulo stromate ca. 12—30, dense stipata, elliptica, ostiolis sublongia tenuibus, obtusissimis vix vel non prominulis, radiatim 4—5 sulcatis prae-

dita. Asci anguste oblongi, longissime pedicellati, 8-spori, 50—60 μ longi (pars sporif.), 7 μ crassi. Sporae conglobosae, cylindraceae, parum curvatae, fuscae, 12—14 μ longae, 2.5—3 μ crassae.

Ad ramos aridos *Quercus tinctoriæ* Bartr., April, 1883.

Ascis sporidiisque majoribus a *Diatrype disciforme*, ostiolis minoribus, non vel vix prominulis, sporidiis crassioribus, a *D. asterostoma* valde diversa.

Septoria bacilligera Winter nova species.—Maculae parvae, angulares vel irregulares, interdum confluentes plerumque 1 millim. diam., candidae exaridaeque, linea atra cinctae. Perithecia sparsa, minutissima, globosa, membranacea, poro pertusa, atra, 80—90 μ diam. Sporae numerosissimae, bacilliformes, saepe uno apice parum incrassatae, 1—3 septatae, demum ad septa constrictae, hyalinae, plerumque rectae, 9—23 μ longae, 3—3.5 μ crassae.

Ad *Ambrosiæ trifidae*, L. folia viva, October, 1883.

Septoria tenuissima Winter nova species.—Maculae minutae, rotundato-angulatae, ½—1½ millim. latae, arescendo-candidae, linea elevata, fusco-atra circumdatae, area indeterminata, viridi-fusca cinctae. Perithecia sparsa, plerumque epiphylla, punctiformia, globosa, atra, poro pertusa, 60—70 μ diam. Sporae tenuissime filiformes, non distincte septatae, saepe flexuosae, hyalinae, 20—28 μ longae, 1 μ crassae.

Ad *Bœhmeriæ cylindricae*, Willd. folia viva, September, 1883.

Septoria infuscata Winter nova species.—Maculae magnae, rotundatae v. irregulares, sordide griseae, saepe variegatae et subzonatae, area perlata, fusca, indeterminata cinctae, usque 20 millim. longae, 6 millim. latae. Perithecia sparsa gregariave, prominula, globosa, atra, tenuissime membranacea, 87—105 μ diam. Sporae filiformes utrinque rotundatae, sursum perparum incrassatae, multiseptatae, hyalinae, 50—70 μ long, 1.5—2 μ crassae.

Ad *Lepachidis pinnatae*, Torr. et Gr. folia viva, Juli, 1883.

Septoria Mimuli Winter nova species.—Maculae sparsae vel gregariae, rotundatae angulataeve, interdum irregulares et confluentes, arescendo-albidae, griseo- vel sordide-fuscescentes, margine lato, distincto, purpureo vel fusco, et area indeterminata, fuscescenti cinctae, ½—3 millim. latae. Perithecia solitaria vel parca, punctiformia, atra, globosa, 60—90 μ lata. Sporae cylindricae, utrinque attenuatae, remote septatae, hyalinae, curvatae, 35—45 μ longae, 2.5 μ crassae.

Ad folia viva *Mimuli ringentis* L., August, 1882.

Septoria cirrhosa Winter nova species.—Maculae sparsae vel confluentes, subrotundatae s. irregulares, submagnae, pallide fuscidulae, centro saepe palliores, area lata, luteola circumdatae, indeterminatae usque 7 millim. latae. Perithecia amphigena, laxo gregaria, semiimmersa, depresse globosa, poro late pertuso, atra, 100—130 μ diam. Sporae cylindraceo-filiformes, saepe flexuosae curvataeve, utrinque acutae, chlorino-hyalinae, plerumque 3—5-septatae, 30—45 μ longae, 2—2.5 μ crassae, cirrhose excipulae.

Ad folia viva *Staphyleae trifoliae*, L., August, 1882.

SEPTORIA UNICOLOR Winter nova species.—Maculae angulosae vel rotundatae, olivacae, plerumque determinatae, rarius indeterminatae, concolore marginatae, usque 5 millim. magnae, sed plerumque minores. Perithecia epiphylla, minutissima, sparsa, globosa, tenuissime membranacea. Sporae filiformes, saepe flexuosae, hyalinae, non vel vix visible septatae, 26—32 μ longae, vix 1 μ crassae.

Ad folia viva *Mulgedii acuminati* DC., Juni, 1883; a Septoria Mulgedii Thuemen et aliis speciebus in Compositis lectis valde diversa.

PHYLLOSTICTA CIRCUMVALLATA Winter nova species.—Maculae rotundato-augustatae, griseae, linea fusco-atra, elevata circumscriptae, ca. 5 millim. diam. Perithecia sparsa, plerumque epiphylla, lenticularia, atra, membranacea, 100—120 μ diam. Sporae ellipticae, utrinque acuminatae, 7—9 μ longae, 3½—4 μ crassae, nucleis 2 magnis praeditae, hyalinae, continuae.

Ad folia languida *Liriodendri tulipiferæ* L., autumno, 1883.

PHYLLOSTICTA SANGUINARIAE Winter nova species.—Maculae sparsae, rotundatae vel parum irregulares, determinatae, arescendo-griseae vel albidae, margine distincto, fusco-purpureo, ambitu linea elevata, fusco-atra limitatae, area indeterminata, lata, fuscidula circumdatae, 1—5 millim. latae. Perithecia epiphylla, gregaria, erumpentia, punctiformia, globosa, atra, ca. 100 μ diam. Sporae numerosissimae, elliptico-oblongae, saepe uno apice parum attenuatae, hyalinae, 5—7 μ longae, 1.5—2.5 μ crassae.

Ad folia viva *Sanguinariae Canadensis* L. Mai, 1884.

CHÆTOPHOMA MACULANS Winter nova species.—Perithecia minuta, globosa, pora pertusa, fusca, membranacea, 70 μ diam., in macula rotundata vel subirregulari, magna (usque 25 millim. lata,) fusca, demum fusco-atra, margine indeterminata, pallidiore cincta, interdum autem a linea atra, limitata, amphigena, superficialia, mycelia repente, ramoso, septato, fusco, subdensa insidentia. Sporae numerosissimae, et minutissimae, ellipticae, hyalinae, unicellulares, vix 2 μ longae.

Ad folia viva languidave *Silphii terebinthacei* L., autumno, 1883.

LIBERTELLA GLEDITSCHIAE Winter nova species.—Acervuli difformes immersi, intus pallidi, linea atra circumdati. Sporae in cirros plerumque filiformes, contortos, aurantiacos erumpentes, filiformi-fusoideae, valde curvatae, tenuissimae, hyalinae, 17—25 μ longae, vix 1 μ crassae.

Ad corticem putridum *Gleditschiae Triacanthi* L., Januar, 1884.

CYLINDROSPORIUM CIRCINANS Winter nova species.—Acervuli epiphylli, magni, plerumque circinatim vel concentrice stipati, rarius inordinate gregarii, rotundato-angulati vel irregulares, saepe confluentes, orbes vel maculas usque 15 millim. latos, fusco vel sordide-griseas formantes, margine elevato obscurioriori varie flexuoso circumdati, applanati. Sporae cylindrico-fusiformes, utrinque acutiusculae, parce septatae, hya-

linae, saepe flexuosae, 20—30 μ longae, 1.5 μ crassae.

Ad *Sanguinariae Canadensis*, L. folia viva, Mai, 1884.

Ellisiella mutica Winter nova species.—Caespituli miniori, punctiformes, atri, in maculis fuscis, rotundatis vel irregularibus, area luteola lata, indeterminata cinctis, centro demum arescendo-griseis, 5—12 millim. diam., hypophylli, sparsi. Hyphae steriles erectae, sursum attenuatae, saepe subflexuosae, parce remoteque septatae, basi plus minusve incrassatae, fuscae, 70—96 μ longae, 3.5 μ crassae. Basidia brevo cylindrica, apice rotundata, pallidissime olivacea, 14—16 μ crassae. Basidia brevo cylindrica, apice rotundata, pallidissime olivacea, 14—16 μ longae, 3.5 μ crassae. Sporae fusoideae, curvatae, continuae, guttulatae, chlorinohyalinae, utrinque acutae, 26—30 μ longae, 3.5 μ crassae.

Ad folia viva *Silphii laevigati*, Ell., August, 1883.

Cercospora Catalpæ Winter nova species.—Maculae rotundatae vel angulatae, demum irregulares, in pagina foliorum superiore arescendo-griseae vel albidae, fusco-cinctae, in pagina inferiore griseae seu centro pallescente-albidae, usque 4 millim. latae. Caespites hypophylli, sparsi, oculo nudo non conspicui. Hyphae fasciculatae, e stromate pulviniformi, fusco, minuto ortae, erectae, torulosae interdum parce romosae, fuscae, sursum pallidiores vel hyalinae, remote septatae, usque 70 μ longae. Sporae longissime obclavatae, infra mediam latissimae (usque 5 μ) basin versus perparum, sursum vero maxime attenuatae, saepe curvatae, septatae, hyalinae, usque 75 μ longae.

Ad folia languida *Catalpae bignonioides*, Walt. October, 1883.

Cercospora angulata Winter nova species.—Maculae rotundato-angulatae, arescendo-albidae vel cinereae, margine distincto, lato, fusco-atro cinctae, 1—3 millim. latae, interdum confluentes. Caespituli plerumque hypophylli, sparsi, minutissimi, fusci. Hyphae fasciculatae, erectae, non vel parum torulosae, simplices, fuscae, remote septatae, 78—105 μ longae (raro longiores), 5—5.5 μ crassae. Sporae filiformi-obclavatae, sursum longissime attenuatae, hyalinae, 7—16-septatae, 80—170 μ longae, 3.5 μ crassae.

Ad folia viva *Philadelphi coronarii*, L., August, 1883.

Cercospora albidomaculans Winter nova species. — Maculae dense sparsae, minutae, rotundatae, angulatae, vel irregulares, arescendo-albidae s. griseae, margine angusto, determinato, fusco-atro limitatae, ½—3 millim. latae. Hyphae fasciculatae, caespites minutissimos, gregarios, fuscidulos formantes, erectae, torulosae et minute dentatae, interdum parce ramulosae, septatae, fuscae, 45—70 μ longae, 5 μ crassae. Sporae filiformi-obclavatae, *i. e.*, e basi parum incrassata sursum longissime attenuatae, pluri-septatae, hyalinae, usque 96 μ longae, 3.5—4.5 μ crassae.

Ad folia viva *Ricini communis*, L., autumno, 1883.

Cercospora variicolor Winter nova species. — Maculae magnae, primo orbiculares, demum irregulares, centro griseae, margine latissimo,

distincte limitato, pallide sordidique, fuligineo vel cervino, zonis pluribus concentricis griseis notato circumdatae, 10—25 millim. latae. Caespituli epiphylli, dense sparsi, atri, minutissimi. Hyphae fasciculatae e tuberculo minuto, hemispherico, pseudoparenchymatico, fusco oriundae, erectae, torulosae, plerumque simplices, fuscae, parce septatae, 35—53 μ longae, 3.5 μ crassae. Sporae filiformes, deorsum parum longaeque incrassatae, usque 87 μ longae, 3.5 μ crassae, pallide olivaceae, parcissime septatae, minute guttulatae.

Ad folia viva *Paeoniae officinalis*, L., August, 1883.

CERCOSPORA CAULICOLA Winter nova species.—Caulicola. Maculae plus minusve elongatae, non raro caulem circumdantes, saepe confluentes, centro sordide luteolae vel griseae, margine lato fusco vel fusco atro, et area indeterminata, latissima, luteola cinctae, 1—3 millim. longae. Caespites in centro maculorum gregariae, minutae, erumpentes, atrae. Hyphae caespitosae, e tuberculo magno, fere globoso, sphaeriaeforme, pseudoparenchymatico, fusco oriundae, erectae, torulosae, simplices, parcissime septatae, fuscae, usque 50 μ longae, 4—5 μ crassae. Sporae fere aciculares, sursum attenuatae, deorsum perparum incrassatae, basi truncatae, triseptatae, hyalinae, usque 45 μ longae, 2.5 μ crassae.

Ad *Asparagi officinalis*, L. caules ramulasque vivas, autumno, 1883.

CERCOSPORA PTELEÆ Winter nova species.—Maculae sparsae, minutae, rotundato-angulatae, centro arescendo-albidae, late et indeterminate fusco-atro cinctae, area lata, luteola circumdatae, ca. 2—3 millim. (sine area) latae. Caespites hypophylli, dense stipati, demum saepe confluentes, olivacei. Hyphae caespitosae, erectae, simplices vel pluriseptatae, usque 130 μ longae, 5 μ crassae. Sporae obclavato-cylindraceae, sursum longe, sed parum attenuatae, 3—4-septatae, ad septa saepe constrictae, olivaceae, usque 90 μ longae, 6 μ crassae.

Ad folia viva *Pteleae trifoliatae*, L. Juni, 1885.

CERCOSPORA AFFLATA Winter nova species.—Sine macula. Caespites tenuissimi plerumque hypophylli, effusi, indumentum tenuissimum, saepe indeterminatum, rarius limitatum, olivaceum formantes, interdum, confluentes et partes majores folii obducentes. Hyphae fasciculatae, erectae, simplices, valde torulosae et dentatae, fuscae parce septatae, usque 160 μ longae, 3.5 μ crassae. Sporae longissime cylindricae, sursum perparum (interdum vix) attenuatae, pallidissime olivaceae, pluriseptatae et multiguttulatae, usque 110 μ longae, 5 μ crassae.

Ad folia viva *Pteleae trifoliatae* L., September, 1883; a praecedente valde diversa et facile distinguenda.

CERCOSPORA AVICULARIS Winter nova species.—Maculae sparsae, minutae, rotundato-irregulares, grisea vel fuscidulae, margine determinato, atro-purpureo, angusto cinctae, 1—3 millim. latae. Caespites epiphylli, numerossissimi, gregarii, minutissimi, fusci. Hyphae fasciculatae, erectae, sursum parum torulosae et denticulatae, fuscae, 26—35 μ longae, 3.5 μ crassae. Sporae elongato-obclavatae, septatae, sursum

parum angustatae, pallide fuscidulae, usque 50 μ longae, 3.5 μ crassae.

Ad folia viva *Polygoni avicularis* L., Juli, 1883. Sporis brevioribus, fuscidulis, hyphisque brevioribus, etc., a Cercospora polygonacea E. et E. bene distincta; cum Cercospora Polygonorum Cke. non comparanda.

CREPIDOTUS RUFO-LATERITIUS Bresadola in litt. ad me.—Pileus membranaceus, resupinatus, raro reflexus, cupularis, 2—4 millim. latus, glaber, lateritio-rufidulus, margine lobato. Lamellae latae, ventricosae, valde distantes, in puncto excentrico concurrentes, utrinque rotundatae, concolores acie alba. Sporae ovatae, flavidae, 10—12 μ longae, 8 μ crassae.

Ad corticem *Crataegi crus-galli* L., Februar, 1884.

ÆCIDIUM CERASTII Winter nova speces.—Pseudoperidia supra faciem foliorum inferiorem totam dense sparsa, interdum praecipue secus nervum primarium stipata, sine macula, sed folium totum decolorantia, semiimmersa, patellaeformia, late aperta, margine crenulato incisoque, late recurvo, albida. Sporae angulato-rotundatae, tenuissime verruculosae, aurantiaceae, 17—22 μ diam.

Ad folia viva *Cerastii nutantis*, Reff. Mai. 1885.

NORTH AMERICAN SPECIES OF CYLINDROSPORIUM.

BY J. B. ELLIS AND B. M. EVERHART.

CYLINDROSPORIUM, Unger, Em.* *Cylindrospora*, Ung. Exanth, p. 166.—Of this genus, as now understood, Saccardo, in Syll. III, describes eighteen species and defines the genus as follows:

"Acervula (collections of hyphæ and conidia) subepermidal, white or pallid, disciform or subeffuse. Conidia filiform, hyaline, continuous, generally flexuous." This character, so far as the conidia are concerned, should be emended for the conidia, at first generally nucleate, become in some cases certainly, possibly in all, one or more septate. The subepidermal origin of the conidia is the essential character separating this genus from *Cercospora*. In *Glœosporium* the spores are shorter and thicker and are mixed with a viscous fluid which, expelled with them, dries into little resin-like heaps on the surface of the matrix. The following species of *Cylindrosporium* have thus far been found in this country:

1. CYLINDROSPORIUM VERATRINUM, Sacc. & Winter, Rab-Winter's Fungi Eur. 2879, Sacc. Syll. III, p. 740.

Acervuli minute, innate, seriate, irregular. Hyphæ filiform. Conidia bacillary, curved, rounded at the ends, 75—90 x 3½—4½ μ, 2—3-septate, not constricted, hyaline, expelled in white tufts or heaps which form narrow,

* The *Cylindrosporium* of Preuss in Linn. 1851, is, as we judge from the figure of *C. longipes*, in Sturm's Flora III, 29, p. 69 tab. 35, synonymous in part, at least, with *Chalara*.

white lines or striæ, ½—1 cm. long, on each side of which the leaf is slightly discolored.

On living leaves of *Veratrum viride*, Adriondac Mts., N. Y. (Peck).

2. CYLINDROSPORIUM SCROPHULARIÆ, S. & E., Mich. II, p. 575.

Spots minute, white with a broad, discolored margin. Acervuli small, subepidermal. Conidia filiform, curved, 30—40 x 1½—2 μ, 3-nucleolate, becoming 1—3-septate, hyaline arising from a slender, vaguely branched mycelium.

On leaves of *Scrophularia nodosa*, Pennsylvania (Martin), Illinois, (Hart.) *Septoria Scrophularia*, West, occurs on the same spots and has spores much like those of the *Cylindrosporium* only narrower (1 μ), and usually more or less bent.

3. CYDINDROSPORIUM MICROSPILUM, Sacc. & Winter, Miscellanea Mycologica, p. 16.

Spots circular, very small, white with a narrow, dark margin. Acervuli innate, amphigenous, punctiform, pale. Conidia bacillary, somewhat curved, rounded at each end, 50—60 x 4 μ, spuriously 4—6-septate, hyaline.

On oak leaves, Missouri (Demetrio).

4. CYLINDROSPORIUM GLYCYRRHIZÆ, Hark., Bull. Cal. Acad., Feb. 1884, p. 32.

Hypophyllous, covering nearly the whole surface of the affected leaflets, oozing out in tendrils. Conidia cylindrical, attenuated at each end, with several vacuoles, 40—70 x 4—5 μ.

On living leaves of *Glycyrrhiza lepidota*, Sunol, Cal. (Harkness.)

5. CYLINDROSPORIUM GEI, Farlow. Appalachia, vol. III, p. 250.

Spots small, distinctly limited. Hyphæ hyaline, amphigenous, very numerous from a dense, subparenchymatous mass of threads, making their way through the stomata, forcing apart the closing cells, slender, about 75—115 μ long, scarcely 3 μ in diameter, simple or branching, ending in very long (80—110 μ) filiform, hyaline conidia, which are straight or irregularly bent.

On leaves of *Geum radiatum*, var. Peckii, White Mts., N. H. (Farlow).

6. CYLINDROSPORIUM RUBI, Ell. & Morgan, n. s.

Spots amphigenous, brownish-gray and definite above (2–3 mm.), sometimes confluent, nearly concealed below by the tomentum of the leaf. Acervuli epiphyllous, punctiform, subcutaneous, then suberumpent, pale. Spores filiform, narrower at one end, nearly straight or more or less curved, 3—5-(mostly 3-) septate, hyaline, 40—55 x 2½ μ at the thickest part. Hyphæ rudimentary and obscure.

On living leaves of *Rubus strigosus* (cult.), Wis. (Dr. J. Brown.)

7. CYLINDROSPORIUM CIRCINANS, Winter, n. s.

Acervuli epiphyllous, large, applanate, generally circinately or concentrically crowded, more rarely irregularly gregarious, rotundate-angular or irregular, often confluent, forming brownish or dirty gray circles

or spots, sometimes as much as 15 mm. in diameter, with an elevated, rather obscure, flexuous border. Spores cylindric-fusiform, rather acute at each end, sparingly septate, hyaline, often flexuous, 20—30 x 1½ μ.

On living leaves of *Sanguinaria Canadensis*, Perryville, Mo., May, 1884 (C. H. Demetrio).

8. CYLINDROSPORIUM FRAXINI (E & K.), Journ. Myc. I, p. 2, sub Cercospora.

Further observation shows that the origin of the conidia in this species is subepidermal and that it is really a *Cylindosporium*, as that genus is now understood. It was described as follows:

Scattered over the lower surface of the leaf on small, rusty brown spots, limited by the veinlets of the leaf and forming at length, by confluence, much larger (½—1 cm.) patches with an irregular outline. The leaf is also mottled above with rusty brown in which small, light colored spots mark the position of the denser tufts beneath. Hyphæ densely tufted, nearly hyaline, short, (16—26 μ) lax, slightly swollen at the base, bearing the cylindrical, nearly hyaline (with a slight yellowish tinge) 3—4 septate, granular and nucleate conidia, 70—100 x 5—6 μ, more or less curved and ends obtuse. Accompanied by an immature *Sphærella* of which it is probably the conidial stage.

On *Fraxinus viridis*, Kansas (Kellerman).

Possibly Cercospora Toxicodendri, Ell., may also be referred to Cylindrosporium.

HOST PLANTS.

Fraxinus viridis (C. Fraxini, E. & K.) 8.
Geum radiatum (C. Gei, Farlow) 5.
Glycyrrhiza lepidota (C. Glycyrrhizæ, Hk.) 4.
Oak leaves (C. microspilum, S. & W.) 3.
Rubus occidentalis (C. Rubi, Ell. & Morg.) 6.
Sanguinaria Canadensis (C. circinans, Winter) 7.
Scrophularia nodosa (C. Scrophulariæ, S. & E.) 2.
Veratrum viride (C. veratrinum, S. & W.) 1.

A NEW GENUS OF PYRENOMYCETES.

BY J. B. ELLIS AND B. M. EVERHART.

Among the published species of *Sphæronema*, we find two that are ascigerous, and for their reception the following new genus is proposed.

HYPSOTHECA, Ell. & Everhart.—Perithecia (stroma ?) subulate, stylosporiferous at base and with a medial or subapical enlargement above containing the ascigerous nucleus. This latter character will distinguish the proposed genus from Ceratostoma. *Caliciopsis*, Pk., is also closely allied but is placed by its author among the *Discomycetes*.

HYPSOTHECA SUBCORTICALIS, (C. & E.) *Sphæronema subcorticale*, C. & E., Grev. VI, p. 83.—Perithecia subcylindrical, about 1½ mm. high and 100 μ thick, only slightly enlarged at base and containing a few subglobose, continuous, brown stylospores, 3—5 μ diameter, or oblong-ovate, 6—10 x 4—5 μ and 2—3-septate. Ascigerous cavity subapical, formed by a gradual subovate enlargement 150—175 μ diameter in the middle and closely packed with the oblong-ovate or subelliptical, 8-spored asci, 12—15 x 7—9 μ on slender pedicels 15—25 μ long, and without paraphyses. The asci are hyaline and smaller at first. Sporidia conglomerated, subglobose, brownish, 3—3½ μ.

Growing from the inner surface of the loosened bark or from the exposed edges of loosened pieces of bark on dry, decaying oak limbs, lying on the ground. Newfield, N. J., Sept., 1877, and March, 1883.

This description was made from re-examination of the original specimens.

HYPSOTHECA CALICIOIDES, (Fr.) *Sporocybe calicioides*, Fr. S. M. III, p. 342. Exsiccati, Rav. Fung. Car. I, No. 83.—Gregarious, subulate, black and smooth, about 1½ mm. high, 115 μ thick, the swollen, subelliptical, ascigerous cavity, about midway between the base and apex, 250 μ thick. Asci (spore bearing part) oblong or obovate, 15—20 x 8—11 μ, with a thread-like stipe of about the same length. Sporidia conglomerated, elliptical, hyaline becoming brown, continuous, 6—7 x 3—3½ μ. Ravenel's specimens are on poplar bark. Mr. C. J. Sprague has sent specimens collected by W. N. Suksdorf in Washington Territory, and which agree in all respects with Ravenel's specimens. Suksdorf's specimens are also, apparently, on bark of poplar.

To the two above described we add the following new species which has, as yet, been found but sparingly.

HYPSOTHECA THUJINA, E. & E.—On partly dead foliage of *Cupressus thyoides*, Newfield, N. J., April, 1880. Perithecia subulate, 700—800 μ high and 55—60 μ thick below, with a gradually enlarged or swollen place near the top, about 150 μ long and 90—100 μ thick and above this, again contracted to about the same size as below, forming a truncate beak 75—80 μ long, the whole being, in fact, a hollow cylinder of fibrose-cellular structure, slightly enlarged at base and filled with minute, hyaline, oblong or cylindrical, straight or slightly curved, 2—3 x ½ μ spermatia and the swollen part above filled with an abundance of club-shaped, 8-spored asci, without paraphyses, and consisting of an obovate or subelliptical head or spore-bearing part 9—11 x 4½—5½ μ and a filiform base or stipe 15—20 μ long. The membrane of the asci is very delicate and scarcely discernible after the sporidia have matured but easily seen in the young state. Sporidia globose, pale-brown, 2½ μ in diameter, collected in a mass.

A NEW STEREUM FROM NORTH CAROLINA.

STEREUM (MERISMA) CAROLINIENSE, Cke. & Rav.

Pileus multiplex, infundibuliform, deeply incised, forming lobes variable in size, all confluent at the base in a common stem. Whole plant six inches high, 4—5 inches broad, ochraceous, with faint zones of darker color, margin of lobes entire, surface smooth. Hymenium even, ochraceous-white; stem minutely velvety.

Wilmington, North Carolina (Dr. Thomas F. Wood.)

Allied to *S. multizonatum*, Berk, which is a Stereum rather than a Thelephora. C.

Found also, quite recently, at West Chester, Pa., by Mr. Everhart. This species differs from the usual type of *Stereum* in its subcarnose texture, being quite soft and juicy when fresh, and decaying quickly unless dried with care. The general aspect is that of a large, pallid Thelephora.—[EDS.]

NEW LITERATURE.

BY W. A. KELLERMAN.

"THE GENUS CINCRACTIA." By William Trelease, in the Bulletin of the Torrey Botanical Club, July, 1885, with plate.

This article of two pages refers particularly to a rare smut on species of Cyperus and Fimbristylis named by Berkely in 1852 Ustilago axicola, now referred to a new genus (Cintractia) by Cornu because its mode of fruiting is so different from that of other species of Ustilago—and Ustilago Junci, Schw., on Juncus tenuis, hitherto found from New York to North Carolina, and west to Wisconsin and Iowa. The mycelium of the latter, "as in the preceding species, persists within the diseased parts of the host, though it is usually less abundant in the pith. Outside of the fibro-vascular bundles it becomes denser, forming a continuous, gelatinous stroma, which is colorless except for a narrow, yellowish band near its outer edge. The outermost cells of this stroma are uniformly fertile, so that its entire outer portion passes into a mass of young spores that are gradually pushed outward as they mature. At first the sori are covered by the epidermis which renders them lead-colored. After its disappearance the mass of spores appears intensely black, and gradually crumbles away. The mature spores, as seen singly, are of a dark brown color and rather opaque. They are minutely granulated, irregularly rounded or ellipsoidal in form, and measure 12—15 x 14—21 μ." Its name therefore would be *Cintractia Junci* (Schw.)

"PARASITIC FUNGI OF ILLINOIS," Part I. By T. J. Burrill, Bulletin of the Illinois State Laboratory of Natural History. Vol. II.

This consists of an Introduction, 10 pages; an account of Uredineæ.

3 pages; a key to the genera, 2 pages; descriptions of the species with host plants, dates and localities, 85 pages; a Glossary, 3 pages; and Indexes to Host Plants and to the Species, 7 pages. The genera and number of species given are as follows: Uromyces 20, Puccinia 48, Phragmidium 5, Ravenelia 1, Gymnosporangium 1, Cronartium 1, Melampsora 4, Coleosporium 2, Uredo 1, Cæoma 2, Æcidium 42, and Rœstelia 2. Prof. Burrill describes the following species: Uromyces Œnotheræ, Burr., on Œ. linifolia; U. Scirpi, Burr., on S. fluviatilis; U. graminicola, Burr., on Panicum virgatum and Elymus Virginicus; Puccinia tenuis, Burr., on Eupatorium ageratoides; P. Seymeriæ, Burr., on S. macrophylla; Melampsora Crotonis, Burr., on C. capitatum, C. mononthogynus and C. linearis; Æcidium Diodiæ, Burr., on D. teres; Æ. Myosotidis, Bur., on M. verna; Æ. Crotonopsidis, Burr., on C. linearis; and Æ. Trillii, Burr., on T. recurvatum.

"The Mycologic Flora of the Miami Valley, Ohio." By A. P. Morgan. The Journal of the Cincinnati Society of Natural History, Vol. VIII, p. 91, continued from Vol. VII, p. 10.

This article of twenty pages contains the descriptions of the species of Polyporus, giving, as in the three preceding articles, a synoptical key by means of which the labor of identification is somewhat facilitated. There is one accompanying plate, of P. delectans, Peck. Prof. Morgan in these papers is doing good service in a most difficult field for which amateurs and beginners particularly will be very thankful. The preceding pamphlet of Prof. Burrill's belongs also to the same category.

"Beitraege zur Flora der Rost und Brandpilze (Uredineen ustilagineen) Thuerigens." Von G. Oertel. (Fortsetzung von Nr. 4, 5, p. 73.) Deutsche botanische Monatsschrift, III Jarh. Nr. 7—8.

"New British Fungi." By M. C. Cooke. Grevillea, Sept. 1885.

"Californian Fungi." By M. C. Cooke and W. H. Harkness, l. c.

"Some Exotic Fungi." By M. C. Cooke, l. c.

Eight described species from Australasia, seven from Southern Asia, one from South Africa, and four from North America. The latter are Radulum concentricum, Cke. & Ellis, on logs, Oregon; Cytispora Smilacis, Cke., on exposed roots of Smilax, Darien, Georgia; Hysterium (Gloniella) syconophilum, Cke., on living bark of Ficus carica. S. C.; and Ailographum Arundinariæ, Cke., on culms of Arundinaria, Darien, Georgia.

"The Myxomycetes,—Their collection and preservation." By Geo. A. Rex. The Botanical Gazette, 1885, p. 290.

ERRATA.

On page 112, Glœosporium punctiforme, Sacc. & Ell. (No. 14) is, by some inexplicable oversight, only No. 29 duplicated under another specific name, and must therefore be cancelled.

TABLE OF CONTENTS.

FUNGI NOVI MISSOURIENSES, - - - - - - - - - - 122
NORTH AMERICAN SPECIES OF CYLINDROSPORIUM, - - - 126
A NEW GENUS OF PYRENOMYCETES, - - - - - - - 128
A NEW STEREUM FROM NORTH CAROLINA, - - - - - - 130
NEW LITERATURE, - - - - - - - - - - - - - 130

Index to Described Species.

	PAGE.		PAGE.
Æcidium Cerastii, Winter	126	Didymosphæria phyllogena, Winter.	121
Cercospora afflata, Winter	125	Diatrype roscola, Winter	121
Cercospora albido-maculans, Winter.	124	Ellisiella mutica, Winter	124
Cercospora angulata, Winter	124	Hypsotheca, Ell. & Ev. nov. gen.	128
Cercospora avicularis, Winter	125	Hpysotheca calicioides (Fr.)	129
Cercospora Catalpæ, Winter	124	Hypsotheca subcorticale, C. & E.	129
Cercospora caulicola, Winter	125	Hypsotheca thujina, E. & E.	129
Cercospora Pteleæ, Winter.	125	Libertella Gleditschiæ, Winter.	123
Cercospora variicolor, Winter	124	Phyllosticta circumvallata, Winter	123
Chætophoma maculans, Winter	123	Phyllosticta Sanguinariæ, Winter.	123
Crepidotus rufo-lateritius, Bres	126	Septoria bacilligera, Winter.	122
Cylindrosporium circinans, Winter.	123	Septoria cirrhosa, Winter	122
Cylindrosporium Fraxini(E. & K.).	128	Septoria infuscata, Winter	122
Cylindrosporium Gei, Farlow	127	Septoria Mimuli, Winter	122
Cylindrosporium Glycyrrhiza, Hark.	127	Septoria tenuissima, Winter	122
Cylindrosporium macrospilum, S & W	127	Sphærella Desmodii, Winter.	121
Cylindrosporium Rubi, Ell. & Morg.	127	Sphæronema subcorticale, C. & E.	129
Cylindrosporium Scrophulariæ, S. & E	127	Sporocybe calicioides, Fr	129
Cylindrosporium veratrinum, Sacc. & Winter	126	Stereum Caroliniense, Cke. & Rav.	130